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IN THE APPLICATION

OF

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FOR A

STOWABLE OVERSHOES HAVING TRACTION SOLES



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13281 U.S. PTO

STOWABLE OVERSHOES TRACTION SOLES

## BACKGROUND OF THE INVENTION

## 1. FIELD OF THE INVENTION

5 The present invention relates to overshoes and overshoe slip-ons. More particularly, the present invention relates to overshoes and overshoe slip-ons having traction material imbedded in the soles.

## 2. DESCRIPTION OF THE RELATED ART

10 The hazards of walking on icy pavement in normal shoes or boots are well known. Various methods are employed to protect shoes in snowy or icy conditions are known, such as overshoes or overshoe slip-ons. Known overshoes and slip-ons or slippers typically have a traction pattern molded into their soles. Such traction patterns give limited traction to the wearer and are  
15 subject to wear. Effective traction patterns require deep cleats, resulting in a bulky item. It would be desirable to provide an overshoe that is made of flexible, stretchable materials which provide a high degree of traction to the user and yet may be folded or rolled so as to be stowable in a small

bag which can be carried in a coat pocket or the glove pocket of a vehicle. Such an overshoe or slipper would be particularly useful for vehicle drivers who may pass through dry country during most of a trip, but may have to stop in icy conditions to  
5 mount chains on the tires of the vehicles or to refuel or visit a restaurant.

U.S. Patent No. 4,160,331, issued July 10, 1979, to Bell, describes an overshoe having a sole with a gripping surface for walking in ice and snow, the shoe having separated discrete  
10 bands in the sole that are composed of a mixture of a grit, such as silicon carbide, and an adhesive. The gripping surface maintains gripping capability during wear as the grit is dispersed through the adhesive.

U.S. Patent No. 4,967,491, issued November 6, 1990, to  
15 Plotkin, describes a disposable overshoe having fold lines therein for convenient and compact stowing in a small, compact container.

U.S. Patent No. 5,150,536, issued September 29, 1992, to Strong, describes winter footwear having adjustment straps secured by hook and loop material.

U.S. Patent No. 5,315,767, issued May 31, 1994, to Bradbury, describes an all-elastic overshoe that is designed to fit snugly over the wearer's shoe such as a tennis shoe.

5 U.S. Patent No. 5,396,717, issued March 14, 1995, to Bell, describes an overshoe made of an elastic material such as rubber, having a sole and an upper. The sole of the overshoe includes an anti-slip grit on its outer surface.

10 U.S. Patent No. 5,950,354, issued September 14, 1999, to Gerhardt, describes a flexible, spiked overshoe having a fastening strap employing hook and loop material.

U.S. Patent No. 6,568,101 B1, issued May 27, 2003, to Jansen describes a soft spike soled overshoe having the spikes integrally molded into the sole.

15 None of the above inventions and patents, taken either singly or in combination, is seen to describe the instant invention as claimed. Thus a stowable overshoe or slipper with a traction sole solving the aforementioned problems is desired.

## SUMMARY OF THE INVENTION

5 The full overshoes or overshoe slippers with traction soles  
of the present invention are lightweight, flexible, and  
stretchable for easy, compact stowing and convenient mounting  
over the wearer's shoes. The inventive overshoes or slippers  
have traction material imbedded in the soles thereof such as  
disperse gravel, pieces of walnut shell, etc., and may, in  
addition, have chains similarly imbedded for additional  
traction. The full overshoes or slippers are easily folded or  
10 rolled into a compact shape for stowing in a small bag which may  
be carried in a coat pocket or glove compartment of a vehicle.  
The inventive full overshoes or slippers would be particularly  
useful for drivers who may have to mount chains on tires or the  
like when encountering winter weather in mountains on a cross-  
15 country trip.

It is an aspect of the invention which provides improved  
elements and arrangements thereof for the purposes described  
which is inexpensive, dependable and fully effective in  
accomplishing its intended purposes.

20 These and other aspects of the present invention will  
become readily apparent upon further review of the following  
specification and drawings.

## BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is an environmental, perspective view of a full overshoe with traction soles according to the present invention.

Fig. 2 is a bottom view showing the sole of the overshoe of Fig. 1 with imbedded disperse traction material.

Fig. 3 is a bottom view similar to that of Fig. 2 with spaced chains imbedded in the sole material.

Fig. 4 is a top view of the overshoe of Fig. 1 in the open configuration.

Fig. 5 is an environmental perspective view of an overshoe similar to that of Fig. 1.

Fig. 6 is an environmental perspective view of a traction slipper having traction soles.

Fig. 7 is an exploded view of a coiled slipper of Fig. 6 as stowed in a storage bag.

Similar reference characters denote corresponding features consistently throughout the attached drawings.

## DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

The present invention is a pair of overshoes or slippers with traction soles which are lightweight, flexible, and stretchable for easy, compact stowing and convenient mounting

over the wearer's shoes. The inventive overshoes or slippers have traction material imbedded in the soles thereof such as disperse gravel, pieces of walnut shell, etc., and may, in addition, have chains similarly imbedded for additional traction. The overshoes or slippers are easily folded or rolled into a compact shape for stowing in a small bag which may be carried in a coat pocket or glove compartment of a vehicle.

Referring to Figs. 1-4, there is shown a full traction overshoe of the traction sole overshoe system of the present invention. Full traction overshoe 10 fits over and substantially covers a wearer's street shoe S. Full overshoe 10 includes an upper 12 of thin, stretchable, and foldable or rollable material such as spandex, rubber such as Latex, elastic Nylon, or other elastic cloth. The traction sole 14 may be Latex or the like molded onto the lower portion of the upper 12. Traction sole 14 may be otherwise attached such as by separate molding and sewing or employing adhesive to attach the traction sole 14 to upper 12. During the molding process, disperse traction material 16 may be imbedded in the traction sole 14 before or during curing of the rubber sole 14. Disperse traction material 16 may include sand, crushed rock, metal shavings, crushed porcelain, crushed sea shells, crushed nut

shells, and the like and combinations thereof. The imbedded traction material 16 is spread or distribute on the form or molding surface so as to be mutually spaced, preferably covering the full lower surface area of the sole 14.

5        In one embodiment a lengthwise, closable, overlapping slit 18 extends from the lower front of the upper to the shoe entry opening 24, allowing the insertion and securing of the shoe S within the overshoe 10. Overlapping slit 18 is a selectively opening and closing slit having a fastener mounted to upper 12  
10    on opposite sides of the slit 18 for selectively opening and securing slit 18. The fastener may be any of mating hook and loop material strips, straps, snaps, buckles, laces, or a zipper.

      A preferred embodiment includes detachable, mutually  
15    attaching strips of hook and loop material (Velcro) set along the edge surfaces of overlapping slit 18 (see Figs. 1 and 4). The overshoe is mounted on the wearer's street shoe by separating the loop material strip 20 from the hook material strip 22, inserting the foot wearing shoe S into the overshoe  
20    10, and the reattaching strips 20 and 22, thus securing the overshoe 10 over the shoe S. The traction sole 24 has a toe 26



and a heel 28, the heel 28 being part of a flat sole or separately defined as shown in Fig. 1.

Referring to Fig. 3, chains 30 may also be imbedded in the traction sole 14 along with the disperse traction material 16.

5 The chains 30 may be imbedded in any desired pattern, but are preferably laterally disposed segments spaced from toe 26 to heel 28 of traction sole 14. The chains provide extra grip against slipping forward or back. As shown in Fig. 1, the traction sole 14 may extend partially upward along the wall of  
10 the upper 12, providing additional traction on packed snow.

Referring to Fig. 5, there is shown a variation of the full traction overshoe 10 where the overlapping slit 10 is opened or secured in place by a lateral strap 32 by hook and loop material connection 34 which is similar to the lengthwise connection of  
15 Fig. 4 having loop material strip 20 and hook material strip 22. This variation is otherwise identical to the embodiment as shown in Figs 1-4 as previously described above.

Referring to Fig. 6, there is shown another embodiment of the traction overshoe of the present invention wherein the  
20 overshoe is of the slip-on or slipper type. Traction slipper 40 covers the sole and lower portion of a street shoe S, the slipper being made of flexible, elastic material so as to be

stretched over the toe and heel of street shoe S, the elastic pull of the material in the partial upper 42 maintaining the traction slipper 40 on the shoe S. Traction slipper upper 40 may be made of any of the materials mentioned in the description of traction overshoe 10 as previously described above, such as Latex rubber or stretchable Nylon material. The traction slipper upper 42 extends upward to shoe entry opening 44 which is of a height and configuration as to fit securely over the toe and heel of the shoe S. The sole 46 is made of Latex rubber or the like and has disperse traction material 52 embedded in the lower surface therein, the materials and manner of embedding being identical to that of the traction full overshoe as in Figs. 1-5, described above.

Chains 30 (see Fig. 3) may also be imbedded in sole 46. The traction sole 46 has a heel 48 and a toe 50 and, as shown in Fig. 6, the traction sole 46 may extend partially upward along the wall of the upper 42, providing additional traction on packed snow. The traction slipper 40 may be easily removed from the wearer's shoe by grasping the rear portion of the upper 42 at heel 48 and pulling outward, stretching the upper 42 and then downward over the heel of the shoe S. The upper 42 is then

allowed to contract and is then slipped off the toe of the shoe S.

Referring to Fig. 7, traction slipper 40 may be folded or rolled into a compact coil which may be stowed in a compact storage bag 60. The bag 60 may be of sufficient length to contain both left and right traction slippers 40, the bag, as shown being of the drawstring type having drawstring 62 threaded through drawstring channel 64 formed in the open end of bag 66. Storage bag 60 may be of any appropriate design and is preferably of a size which is stowable in a coat pocket or glove compartment of a vehicle. As an alternative, both left and right traction slippers 40 may be rolled together for insertion into a slightly wider, shallower bag 60 as desired. The full traction overshoe embodiment 10 as previously described may also be folded or rolled into a compact configuration and stowed in a bag such as bag 60 of appropriate size for carrying or stowing in a vehicle.

A method of making a traction overshoe of the present invention includes the steps of spreading a disperse traction material over the surface of an overshoe sole mold, spreading a vulcanizable rubber material over the disperse traction material, placing an upper on the vulcanizable rubber material

such as to bind therewith, and vulcanizing said rubber material to form the traction overshoe.

It is to be understood that the present invention is not limited to the embodiments described above, but encompasses any  
5 and all embodiments within the scope of the following claims.